

# **USB HUB**

## **User's Manual**

**FCC COMPLIANCE STATEMENT:**

*This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*

**INFORMATION TO USER:**

*This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation; if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:*

- 1. Reorient / Relocate the receiving antenna.*
- 2. Increase the separation between the equipment and receiver.*
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- 4. Consult the dealer or an experienced radio/TV technician for help.*

**CAUTION:** Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment

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# 1. About this product

## 1.1 Introduction

This product conforms to USB Specification Rev. 1.0 and HID class definition Rev.1.0. It requires at least Windows 95 OSR 2.1 or Windows 98 to operate and your computer must have a USB port. The HUB topology supports up to 127 physical devices in a tired-star configuration, with each device having a maximum of 16 end points.

## 1.2 Do's and Don't for Usage

Here is a short summary of items to pay attention to when using this product :

- It is normal for some heat build-up to occur when this product is in use and it may feel warm to the touch.
- Do not open the case, doing so will void the warranty.
- Only use the AC adapter supplied with the unit.
- If the unit starts emitting unusual smells, sounds, or you observe smoke, unplug the unit immediately from it's power supply. Do not continue using the unit, and contact the place you purchased the unit.
- When disconnecting any cable from the unit, please grasp from the plug and do not pull using the cord section as this may cause damage.
- It is recommended that you disconnect the power supply if the unit is not going to be used for a long period of time.
- Do not leave the unit in a location exposed to high humidity, high temperatures, direct sunlight, excessive dust, or excessive moisture.
- Do not touch the unit or cable with a wet hand, as a electric shock is possible. Should the unit become wet, unplug from it's power source before handling.
- Any modifications done to modify this unit by other than authorized personnel will void the warranty, and any damage, electric shock, fire, or loss of function resulting from unauthorized modifications will not be the responsibility of the manufacturer.
- Back-up software data regularly. Any error or loss of data is not guaranteed when using this product.
- Carefully read this manual for the safe purpose before you use this product.

## 1.3 Packing List

Each unit should include the following parts :

USB HUB  
AC Adapter  
USB cable  
Instruction manual

## 1.4 Warranty

This product is warranted for a period of one year after the date of purchase to be free of manufacture defects and to operate properly. During the one year period should a problem occur, please return the unit to the place of purchase, and we will replace the defective unit.

## 1.5 Features

- This product confirms to USB Specification Revision 1.0 and HID Class Definition Rev.1.0.
- This product is plug and play compatible.
- A maximum of 127 devices can be supported.
- A maximum 5 meter connection cable can be used between two hubs.
- This unit can be self-powered by using the AC Adapter supplied or Bus powered.
- All downstream ports are supported with over current capacity.
- Both low speed and high speed devices are supported.
- LED displays indicate power on and connection to each port.

② Up Stream Port    USB B-type connector port for connect to the PC.

③ Power Socket     For the AC Adapter jack connection.

### *Please note :*

- Up Stream means to the PC and Down Stream means to the USB device.
- USB device means, a device that confirms to USB specifications.

## 2. Installation

### 2.1 Location

The best location for the placement of this unit is in the USB devices to be connected and close enough to the PC to allow the supplied cable to reach the PC.

### 2.2 Power connection

- Locate the unit close enough to a electrical outlet so that the AC adapter cable will reach the outlet without putting a strain on the cable causing the adapter jack to be pulled out of the unit.
- It is recommended that the AC adapter be plugged into the electrical outlet first, and then plugged into the unit .

- It is recommended that the AC power adapter be used at all times. Even though this unit can be self powered, it is only for low speed devices and multiple devices can cause a power shortage in the unit.
- It is recommended that the AC adapter to be used whenever more than one hub is used in a stacking configuration.
- Do not remove the AC adapter when the unit is working.

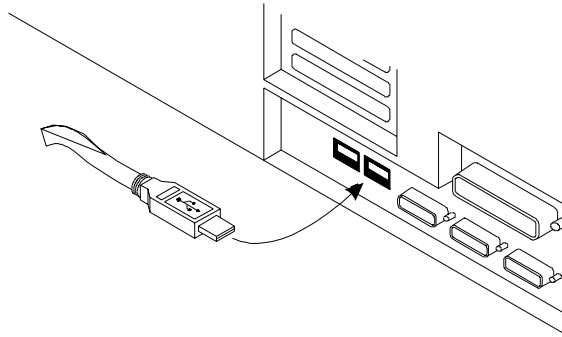
## 3. Connecting

### 3.1 Connecting to your computer

This unit can be connected or disconnected to your PC when the computers on and running programs, using any USB port on your computer. This product allows your computer to interface with various USB devices. See figure below.

### 3.2 Connecting the USB cable

#### A type connector



Insert USB cable into the down stream port of the PC (or) this product. Make sure that it goes all the way into the socket and is firmly connected.

Insert USB cable to up stream port of this product (or) USB devices. Make sure that it does all the way into the socket and is firmly connected.

## 4. Initial Connection

- When connecting this unit for the first time a message box will display :  
“Searching for unknown hardware device, searching software for installation”
- Your computer will then start up the Device Driver Wizard, and will install the unit. This product is recognized as “generic USB Hub”
- Once your computer has confirmed installation, you can then connect any USB devices you wish to the Hub.

- Please note that your particular software may have slightly different versions of installation software and the message used in installing this device.



## 5. Troubleshooting

If you encounter problems in using this product, please refer to the following list of common problems encountered and possible causes. If you cannot solve the problem or it does not appear in the list below, please contact the place of purchase for repair or replacement.

**Q :** Computer cannot recognize this product, or Display has a “ ! ” mark to the left side of the “ Common USB Hub” in displayed in the device Manager message box, or Something other than “Common USB Hub” is displayed in the device Manager message box.

**A :** *One or all of the connections are not firmly in the place and properly connected*

**Q :** Red Power LED is not lit on the unit.

**A :** *The AC adapter is not properly connected to the unit or to the outlet, or the outlet has no power or is turned off.*

**Q :** Green LED light is not lit when port is connected to device.

**A :** *The connection is not firmly in place.*

**Q :** Downstream USB device does not function properly.

**A :** *The downstream USB device is malfunctioning.*

**Q :** When multiple downstream USB devices are connected a malfunction occurs.

**A :** *A particular USB device does not support multiple devices. Please consult the operating manual for that particular USB device.*

## **Hardware Specifications**

<b><u>Specification</u></b>	<b><u>USB specification Rev.1.0 and HID class definition Rev 1.0</u></b>
Topology	Star type
Transmission speed	12Mbps
Transmission media	USB cable
Interface	Up stream port (type B): 1 port Down stream port (type A): 4 ports
Power	PC supply or AC adapter
Operating Temperature	0 C~70 C
Operating humidity	5%~90%
Storage temp	-40 C~70 C

### **Array and circuit of USB port – pin**

1	+5V
2	DATA -
3	DATA +
4	GROUND